



TORREYANA

Published for members of the Torrey Pines Docent Society, #59, Feb., 1981

NEXT DOCENT MEETING- Saturday morning, Feb. 21, 9:00 A.M. Lodge
Election of Officers followed by a presentation, "Interpretive Walks" by Elizabeth Nicoloff and Larry Banks, who will share with us their experiences as Canyoneers. This could be the start of "Docent Sharing" programs, drawing on our varied backgrounds and learning from one another.

At the annual meeting on Saturday, February 21st, the general election of officers for the Torrey Pines Docent Society for 1981 will occur.

The nominating committee, formed in Jan., is asking for your recommendations for Docents to serve on the Executive Board. Anyone wishing to serve on the Board may contact Julie Marine, who is Chairperson of the nominating committee. Phone: 755-5598.

At the coming election, offices to be filled are as follows: President, Vice President, Secretary and Treasurer. Nominees must provide their consent either by writing or by being present to accept verbally a nomination at the annual election meeting. Please remember that only full voting members are qualified to vote and to hold office. This means members who have paid their dues for 1981 and completed all prescribed training requirements for full membership, according to the by-laws of the T.P.D.S.

The following information describes the duties of the Executive Board: President- Presides over monthly meetings and special Board meetings. Vice-President- Conducts meetings in absence of President, assists President by coordinating monthly meetings and programs, assists in finding guest speakers, helps formulate a training program for new members. Secretary- Records minutes of monthly meetings and Board meetings and keeps a record on file, keeps on file a record of applications for membership and a current membership list. Treasurer- Keeps a current record of the organization's finances (dues, donations, expenditures, monthly bank statement) and upon authorization from the Exec. Board may sign checks to meet the expenses of the Society. Gives monthly report.

VOTE VOTE VOTE VOTE



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Please help us keep the Docent Society alive and interesting for everyone. Won't you please share in the work? That means giving your full support- doing monthly duty, serving on the Board, or assisting in other capacities. Presently serving on the Board are: President- Martha Conn, Vice President- Frances Parks, Secretary- Mary Christenson, Treasurer- Murray Nelligan, Torreyana Editor- Millicent Horger, Sales Coordinator- Rowdy James, Librarian- Ruth Hand, Refreshments Chairman- Julie Marine. The position of Executive Secretary is held by the Ranger in charge of Docent activities- Bob Wohl.

We hope to see a large turn-out of Docents at the Feb. meeting.



Submitted by Julie Marine



Report from the Ranger by Bob Wohl

I'm going to try and keep it short. Jack wouldn't want it any other way. As I write this, Jack Welch's retirement party is still one week away. By the time you read this, he will be tending to his horses at his home in Vista, and won't be needing any more "manure". Our new Area Manager will be Bill Fait, coming down from the Railroad Museum in Sacramento, and from previous duties in Santa Cruz Mountains, Silverwood, and San Simeon.

Jack's career is an exceptional one. From the deserts of Anza-Borrego to Assistant District Superintendent, to President of the California State Park Rangers Association, Jack has been in the forefront of new developments and ideas for the State Park System. His ten years as Area Manager of San Diego Coast, and of Torrey Pines especially, have been marked by great change. Many of the stringent ecological rules for the Reserve were brought about under him. Jack was a great friend of the Reserve and of the Docent Society in particular. The Docent Society began and flourished under his sponsorship and involvement. The Youth Conservation Corps (Y.C.C.) programs that have changed the face of the Reserve so dramatically were supported and planned by Jack directly. Under Jack, the Reserve acquired the Extension and is still expanding.

But Jack's greatest contribution was the tone and style he set for this Area. He truly enjoys people, whether they be Docents, Park Rangers, or the park visitors. His managerial style was marked by a "can do" attitude, where new ideas were given fertile ground to grow. He believed in his people's ability to perform, if given the opportunity and the encouragement.

Jack's retirement, Jim Whitehead's earlier, and Jack Knight's, the former Chief of Operations, mark the gradual passing of an era in State Park System history. It is commonly assumed that new ideas come solely from new employees. In these three men's cases, it was people at the top who encouraged innovation and new ideas. The system we now enjoy is the system Jack and others created. And as Jack would say, "Now you know who to blame, too!" Happy Retirement Jack!

TORREY PINES DOCENT SOCIETY

January 17, 1981

Old Business

December minutes were read.

Rowdy gave a year end report on our book sales. On inventory the stock has a retail value of \$1738. Sales have totaled \$2177.67.

REMINDER: Docents on duty, keep track of all book sales by putting a marked ticket in the sales drawer.

Elsa Evans has the rough copy of Hank's book ready and has volunteered to do the type set at work on her word processor. Binding could be simplified by putting it into paperback. We are looking for someone to do a few pen and ink drawings for the title pages.

Publicity Plus: the "running ad" of the year award should go to Elsa, who ran the entire 26 miles of the Mission Bay Marathon sporting her Torrey Pines T-shirt.

New Business

Because our book sales cover such a wide variety of topics, Ruth Hand suggested that we make a plan to have monthly book reviews published in the Torreyana. Eliz. Nicoloff has already volunteered to begin these reports.

Election month is February. Chairman for the nominating committee is Julie Marine. Consider the needs of the society and indicate your interests to Martha Conn, Frances Parks or Julie Marine to make a smooth transition.

An updated movie "California Gray Whales" was shown. Members requested that we have a whale movie available for weekends to be shown on an optional basis. Hank will locate a movie.

Hank shared information from a U.S. Forest Service report. Years of testing seeds and seed cultures show only a 3% genetic variation in the Torrey Pine seedlings. The torrey pine is a near clone; perhaps all descendents coming from one tree.

Welcome to our new docents

Isabel Buechler, friend of Millie Horger, whose membership was a gift, an exemplary idea.

Pam Scott, returning trainee, welcome.

Sickness keeps Joyce Evans from our ranks. It was suggested and approved that we give her a supporting membership in appreciation for her years of dedication.

Duty for February

A plea from Bob Wohl, the reserve is at a peak of visitation, (338 in the lodge on January 16th) with only 3 rangers on full time. Help is needed more than ever from the docents.

Coordinator for February, Mary Christenson 279-5546 or feel free to call the lodge at 452-8732 or 755-2063. The sign up sheet is always on the desk.

ATTENTION ALL DOCENTS!

Dues must be paid by the February meeting if you wish to continue to receive the Torreyana. Voting Members and Associates: \$3.00 per year, Supporting Members: \$10.00 per year.

ALONG THE WAY 2-81

Whales navigate by several means: echo location, solar navigation, and by remembering the contour of the ocean bottom. Bays, inlets, and points along the coast serve as landmarks. If you are lucky, you may get the chance to see a whale "spy hop". This means the whales push themselves vertically out of the water, exposing their eyes. The reason is unknown. It was formerly thought to be visual. It may be part of the courtship ritual. During the "spy hop" whales support themselves by rapidly beating their flukes, or when in the lagoons, by resting their tails on the bottom.

Sometimes a gray whale will leap 30 feet, almost clear the water, then turn and fall on his back with a huge splash. This is called "breaching" and the reason is unknown. The whales may be trying to dislodge the deeply embedded barnacles, or possibly courting males may just be displaying their strength and agility.

Gray whales become sexually mature at from six to ten years of age. Mating season, while the whales are migrating south, is from late November to December. The gestation period is about 13 months and those whales that give birth one year will not mate the following year. Thus less than half of the females will bear calves each season.

WARM NURSERY LAGOONS

After giving birth to a single calf, 15 to 17 feet long and weighing 2,000 lbs., they will spend two months in the Mexican lagoons. In this time the calves will grow to approximately 20 feet and double in weight. From mother's rich milk (40% fat) the baby will develop muscle and blubber necessary to make the long return journey to the Arctic. The young calves consume about 50 gallons of milk a day and are weaned at seven months, when they are approximately 26 feet long. They usually stay with their mothers in the family pod for another two or three years. They form definite family groups.

Like other marine mammals, whales evolved from land reptiles. Fossil evidence of bone structure shows that in the course of millions of years, the front limbs became flippers, and their bodies have been streamlined for rapid movement through the water. The nostrils, once located at the end of the nose, have moved upward to the top of the head, becoming the blow holes. There is also evidence of body hair on the fetus of some whales. This disappears before birth.

THE JOURNEY HOME

As early as mid-February, the newly pregnant females begin their long return trip to the northern feeding grounds. Often they will meet stragglers still on their southerly migration. Mothers with nursing calves are the last to leave for the north. They travel very slowly, farther from shore on their northern journey.

The California Gray Whales population is now estimated to number 12,000. Forty to fifty years is their estimated life span. Their only enemies are killer whales.... and man. Recently the gray whale has become commercially valuable as a tourist attraction. This has resulted in much boat activity along their migration route.

The bluffs of Torrey Pines State Reserve are an excellent place to watch these graceful mammals without bothering or harassing them. At the peak of the season you may see dozens of whales traveling by.



COASTAL STAND by Bill Brothers

The sandy beaches and sand dunes of the coastal strand community encounters the edge of the sea. This arrangement creates a harsh environment for plant survival due to persistent winds laden with sand and salt. The loose blowing sand with its poor water holding ability and low fertility also hinders plant success. The few species adapted to this area are usually prostrate and have creeping stems, which can root at their nodes. These features allow for continuous lateral growth into large colonies. Deep roots of some species have a dual purpose of holding the plant to the substrate and in acquiring water. Water loss is reduced by having pubescent or greyish leaves which decreases the drying effect of the sun and serves as an area for moisture condensation. Water is also stored in succulent leaves of some of the plants. The major species are sand verbena (Abronia umbellata & A. maritima), Beach primrose (Camissonia cheiranthifolia), Sea rocket (Cakile maritima), Sea fig (Carpobrotus aequilaterus) and Beach bur (Ambrosia chamissonis).

Bill

ATTENTION ASSOCIATE DOCENTS FROM TRAINING CLASS OF 1980!

Only 3 members of your class have completed your check sheets and attained full membership. WE NEED YOU! GET BUSY!

2-81
LETTER FROM UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE

To Mr. Joseph Agozino, State park Ecologist, San Diego, Ca. FEB 1981

Dear Joe:

It is way overdue for a progress report on our Torrey Pine project. I have delayed because we planned a manuscript for the journal EVOLUTION, but it seems that may still be months away. In the meanwhile, the results have practical implications that may be of value to you.

Briefly, Torrey pine is the only conifer known to us that has populations with absolutely no genetic variation at the enzyme level. Every individual sampled at the Torrey Pines Reserve was genetically identical for each of 60 genes. Every individual was identical! Similarly, every tree sampled on Santa Rosa Island was identical. However, the Santa Rosa trees differed from the San Diego trees at two, or 3.3%, of the 60 genes. Probably, Torrey Pine came through a bottleneck where its population size was even smaller than now. Inbreeding occurs in small populations, resulting in loss of genetic variation. New variants will arise by mutation, but that is a slow process.

Tom Conkle, who directed the electrophoretic work, jokes that genetic resource conservation will be very simple. It is only necessary to cross one tree from the island with one from the coast and save a single seed. That seed would have a copy of all the genetic variation known to us.

In a serious and practical sense, the results suggest that Torrey Pine will not be able to adapt to environmental changes by evolutionary processes. Any deterioration of the environment could adversely affect its survival, making protection of the reserves all the more important if we wish to keep it from extinction. Torrey Pine seed should be stored in the National seed banks in case the species declines in its natural habitats; for example, because of climatic changes, atmospheric pollution, insects or disease.

Our conclusions are qualified by the class of genetic variants we examined; i.e. electrophoretically separated isozymes, which are functionally similar forms of the same enzyme. Characterizing a tree by its isozymes is analagous to blood-typing cattle. As a working hypothesis, isozyme genes, like blood-type genes, are a representative sample of all classes of genes, such as those that control growth, morphology, and physiological processes. For Torrey Pine the assumption is probably valid, although there is room for argument.

My plans were to wait for a good year to collect seeds for standard field tests of growth and form. However, I have sufficient confidence in the results to feel that extensive genetic analysis is unnecessary. We have enough seed (several trees at San Diego and a few at Santa Rosa) to sow seed this spring in order to establish field plantings in the spring of 1982. The test will compare performance of progeny from differnet mothers when grown in a common and uniform environment. Results will not be available for several years, but will be a final check of conclusions.

Sincerely, F. Thomas Ledig, Project Leader, Institute of
Forest Genetics

Tom

News & Notes

LETTER FROM SCOTLAND 1/7/'81 to Joyce Evans from Katie MacLeod at Inverness

"This is mostly to tell you about my pen friend at the Edinburgh Royal Botanical Gardens, a Mr. Shaw, Curator. I wrote a letter telling all about the Torrey Pine seeds and how I came by them, and that half the plants were in the garden under glass, the other half indoors in a clay pot and doing nicely. And would they like the ones in the clay pot?"

I had a surprisingly chatty letter in return, and all about how he wished he could see Southern California. They didn't normally accept any but wild plants, but would be happy to have the *Pinus torreyana* (!) if I didn't mind their sharing them with an affiliated institution in Ireland. I began to feel almost as good as Darwin.

So our good neighbors, the Sims, who still have their flat in Edinburgh though they are now mostly up here, delivered the pot to the proper place for us. I promptly had another friendly letter from Mr. Shaw saying that the plants were in perfect condition, and thanking me very much. The italics are mine because I am so pleased with myself."

Along Our Bloomin' Trails

Take a ride some sunny February day out Route 6 towards Escondido where you will see a dazzling display of Warty Stem Ceanothus in bloom on the hillsides.

Shake a Torrey Pine branch in February and you will find yourself engulfed in a cloud of greenish-yellow pollen.

The white blooming Stock, so abundant in the Reserve, is an escapee from someone's garden.

Bladder pod is now in bloom. Look for the Harlequin bug which lives on this plant.

Deer weed is beginning to flower. The profile of the blossom is said to resemble a deer's head. Children see the resemblance at once. Most adults don't.

m. H.



WARTY-STEM CEANOTHUS

TORREY PINES DOCENT SOCIETY

PRESIDENT- Martha Conn
Deadline for Torreyana copy
the 25th of each month.
Send contributions to:
Millicent Horger, Editor
13130 Carousel Lane
Del Mar, Ca. 92014
Phone: 481-9554

I WILL LEAVE THIS HOUSE

*I will leave this house, being tired of this house
And too much talk;
I will walk down to the sea, where the wind blows
The waves to chalk,
And the sand scratches like a silver mouse. . . .
I will leave everything here and walk.*

*I do not know why grass, like stubborn leather
Whipped into strings,
Should quiet the heart, why this tumultuous weather,
This salt that stings
My eyes and eyelids, should heal me altogether—
I do not know the reason for such things.*

*I only know that here are walls that harden
The eyes and brain;
I only know words hiss—and hurt—and pardon—
Only to hurt again;
And that the sea is peace: an emerald garden
Dripping with crystal wind and candid rain.*

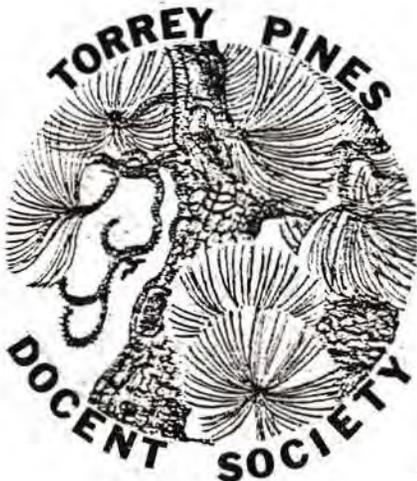
—JOSEPH AUSLANDER

Poetry Corner



Brown Pelican

Torrey Pines Docent Society
C/o Torrey Pines State Reserve
2680 Carlsbad Blvd.
Carlsbad, Ca. 92008



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Scrub Jay